REMARKS

Claim Rejections Under 35 U.S.C. § 112

Claims 1-2 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failure to particularly point out and distinctly claim the subject matter which Applicant regards as his invention. Applicant submits that the new translation of the specification and the amendments to claim 1 clarify any ambiguities in the language of claims 1-2. Removal of this rejection is respectfully requested.

Claims 1-2 were rejected under 35 U.S.C. § 112, first paragraph as not enabled. Applicant submits that the newly translated specification and the amended claims 1-2 renders this rejection moot. Removal of this rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-2, 10-12 were rejected under 35 U.S.C. § 102(b) as being anticipated by Gorn et al. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in Gorn et al. As such, removal of this rejection as it relates to claims 1-2 is requested.

Gorn et al. teach the complete amino acid sequence of the calcitonin receptor. Nowhere does Gorn et al. teach an isolated peptide having at least 70% homology to the amino acid sequence of SEQ. ID. NO: 1, as required by claims 10-13. Any peptide with 70% homology to this sequence would have to be no more than 22 amino acids in length. The amino acid sequence disclosed in Gorn et al. is much longer than that. Gorn et al does not teach peptides smaller than the full receptor. Removal of this rejection with respect to claims 10-12 is requested.

Claims 1-2, 6-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Reisine. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this

disclosed or suggested in Reisine. As such, removal of this rejection as it relates to claims 1-2 is requested.

Reisine teaches the complete amino acid sequence of somatostatin receptor variants. Nowhere does Reisine teach an isolated peptide having at least 70% homology to the amino acid sequence of SEQ. ID. NO: 2 or 3, as required by claims 6-7. Any peptide with 70% homology to these sequences would have to be no more than 38 amino acids in length for SEQ. ID. NO: 2 or 12 amino acids in length for SEQ. ID. NO: 3. The amino acid sequence disclosed in Reisine is much longer than these. Removal of this rejection with respect to claims 6-7 is requested.

Claims 1-2, 10-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by WO 9310149. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in WO 9310149. As such, removal of this rejection as it relates to claims 1-2 is requested.

WO 9310149 teaches the complete amino acid sequence of the calcitonin receptor. Nowhere does WO 9310149 teach an isolated peptide having at least 70% homology to the amino acid sequence of SEQ. ID. NO: 1, as required by claims 10-13. Any peptide with 70% homology to this sequence would have to be no more than 22 amino acids in length. The amino acid sequence disclosed in WO 9310149 is much longer than that. Removal of this rejection with respect to claims 10-11 is requested.

Claims 1-2, 6-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by WO 9313130. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in WO 9313130. As such, removal of this rejection as it relates to claims 1-2 is requested.

WO 9313130 teaches the complete amino acid sequence of the somatostatin receptor. Nowhere does WO 9313130 teach an isolated peptide having at least 70% homology

to the amino acid sequence of SEQ. ID. NO: 1, as required by claims 6-7. Any peptide with 70% homology to these sequences would have to be no more than 38 amino acids in length for SEQ. ID. NO: 2 or 12 amino acids in length for SEQ. ID. NO: 3. The amino acid sequence disclosed in WO 9313130 is much longer than these. WO 9313130 does not teach or suggest peptides smaller than these. Removal of this rejection with respect to claims 6-7 is requested.

Claims 1-2, 10-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by Nussenzvig et al. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nussenzvig et al. does not teach this. Nussenzvig teachs testing of a 33 amino acid intracellular loop peptide in the context of the receptor. The claim now requires that a peptide "consisting of" the missing domain sequence be tested. Nowhere is this disclosed or suggested in Nussenzvig et al. As such, removal of this rejection as it relates to claims 1-2 is requested.

Nussenzvig et al. teach the complete amino acid sequence of the calcitonin receptor. Nowhere does Nussenzvig et al. teach an isolated peptide having at least 70% homology to the amino acid sequence of SEQ. ID. NO: 1, as required by claims 10-13. Any peptide with 70% homology to this sequence would have to be no more than 22 amino acids in length. The amino acid sequence disclosed in Nussenzvig et al. is much longer than that. Even the intracellular loop, although only taught in context of the entire receptor, is 33 amino acids in length. Removal of this rejection with respect to claims 10-11 is requested.

Claims 1-2, 6-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Maget et al. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in Maget et al. As such, removal of this rejection as it relates to claims 1-2 is requested.

Maget et al. teach the complete amino acid sequence of the glucagon receptor. Nowhere does Maget et al. teach an isolated peptide having at least 70% homology to the amino acid sequence of SEQ. ID. NO: 1, as required by claims 10-13. Any peptide with 70%

homology to these sequences would have to be no more than 38 amino acids in length for SEQ. ID. NO: 2 or 12 amino acids in length for SEQ. ID. NO: 3. The amino acid sequence disclosed in Maget et al. is much longer than that. Removal of this rejection with respect to claims 6-7 is requested.

Claims 1-2 were rejected under 35 U.S.C. § 102(b) as being anticipated by Meyerhof et al. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in Meyerhof et al. As such, removal of this rejection as it relates to claims 1-2 is requested.

Claims 1-2 were rejected under 35 U.S.C. § 102(b) as being anticipated by Yasuda et al. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in Yasuda et al. As such, removal of this rejection as it relates to claims 1-2 is requested.

Claims 1-2 were rejected under 35 U.S.C. § 102(b) as being anticipated by Gremlich et al. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in Gremlich et al. As such, removal of this rejection as it relates to claims 1-2 is requested.

Claims 1-2 were rejected under 35 U.S.C. § 102(b) as being anticipated by Song et al. Claim 1 has been amended to require the testing of the isolated peptide consisting of the amino acid sequence of the missing domain for physiological activity. Nowhere is this disclosed or suggested in Song et al. As such, removal of this rejection as it relates to claims 1-2 is requested.

A check in the amount of $460.00 (small entity status) is enclosed to cover the three month Petition For Extension of Time fee. Please charge any additional fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978 — a duplicate of this page is enclosed for that purpose.

The Examiner is requested to telephone the undersigned to discuss prompt resolution of any remaining issues necessary to place this case in condition for allowance.

Respectfully submitted,

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Attachment

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In The Claims

1. (Thrice Amended) A method for the identification of physiologically active peptides, the method comprising the steps of:

identifying amino acid sequences of receptors having one or more variants in size, the receptors being receptive of an identical ligand and being products of the same gene, [wherein there is a substance or cell present in vivo having a functional antagonism against the ligand for the receptor or against a cell which expresses the receptor of the ligand; and] the receptor being a receptor of a substance when there is present in vivo a substance or cell which has a functional antagonism against the ligand for the receptor or the receptor being a receptor of a substance A wherein there is present in vivo a cell or substance which has a functional antagonism to cells on which the substance A causes an effect;

identifying which domain in the larger receptor is missing from the smaller receptor[.]; and

testing a peptide consisting of the amino acid sequence of the missing domain for physiological activity.

6. (Twice Amended) An isolated peptide [wherein said isolated peptide comprises] having at least 70% homology to an amino acid sequence selected from the group consisting of SEQ. ID. NO: 2 and SEQ. ID. NO: 3.

10. (Amended) An isolated peptide [with an] having at least 70% homology to the amino acid sequence [consisting of the sequence] of SEQ. ID. NO:1.

11. (Amended) The peptide of claim [8] 10 wherein said peptide is produced by recombinant or synthetic methods.

12. (Amended) The peptide of claim [8] 10 wherein the N-terminal amino acid is a lysine.

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